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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,722	02/03/2004	Gerard Warnerham	5084	2287

7590 11/17/2004

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EXAMINER

HOOK, JAMES F

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/770,722

Applicant(s)

WARMERDAM, GERARD

Examiner

James F. Hook

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8-9-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 5 and 6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 9, 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathison in view of Warmerdam and Tash (356). The patent to Mathison discloses the recited pipe plug comprising a radially expandable plug body 13 (fig 10) having end portions and a central portion, where the outer surface has a series of alternating raised ribs, end caps 11,12 formed of rigid material are inserted into the end portions, the end caps are provided with a circumferential groove between structures 17 and 18 having a band 16 to hold the body onto the end caps via the groove and a band 14 provided there around the sleeve also aiding in holding the plug body in place on the end caps, where the body is compressed into the groove, an air fitting 20 connected to a source of air 23 is connected through one end cap to allow the body to be expanded, where as seen in figure 10 the ribs have substantially an equal height to width. The patent to Mathison discloses all of the recited structure with the exception of swaging.

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the bands to the end caps, and providing textured bands between the ribs. The patent to Warmerdam discloses the recited inflatable plug comprising an expandable body 14, end caps 34 provided with profiled structure to capture and hold the end of the body, a fitting for a hose 20 to inflate the body through an end cap, and a band 16, 16a is provided to be swaged onto the end caps to hold the body in place. It would have been obvious to one skilled in the art to modify the end caps in Mathison to be provided with a swaged band to hold the expandable body to the end cap as suggested by Warmerdam as such would be a cheaper manner to form the connection between body and end cap in that less parts and assembly would be required. The patent to Tash (356) discloses the recited pipe plug comprising an expandable plug body 16 provided with end portions and a central portion, raised rib sections 26 are provided and a textured set of bands 28 is provided in an alternating fashion between the rib sections 26, end caps 44, 46 and 38 are provided with an inflation means 40 in one of the end caps, where the ribs are seen in the figures to be substantially equal in height and width. It would have been obvious to one skilled in the art to modify the plug body in Mathison by providing a textured surface between ribs as suggested by Tash as such would reduce frictional contact for insertion of the plug and thereby allow for easier insertion of the plug thereby saving time and money.

Claims 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tash (356) in view of Warmerdam. The patent to Tash discloses all the structure set forth above with the exception of swaging bands to the end caps to hold the body to the end caps. The patent to Warmerdam discloses the structure above where the

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inclusion of a groove on the cap instead of the band is merely a reversal of parts and an obvious expedient. It would have been obvious to one skilled in the art to modify the end caps in Tash to be inserted into the plug body and providing swaging bands to hold the body to the end caps as suggested by Warmerdam as such would reduce costs by lessening the number of parts required to connect the body to the end caps and such would be more secure and prevent premature failure, where the use of a groove on the end cap is merely a choice of mechanical expedients and a mere reversal of parts.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tash (356) in view of Warmerdam as applied to claims 1, 3, and 4 above, and further in view of Pottorf. The patent to Tash as modified discloses all of the recited structure with the exception of forming the texture of the bands in diagonal cross grooves. The patent to Pottorf discloses the recited inflatable plug comprising an expandable plug body provided with a textured surface where the texture of the surface is formed of diagonal portions, where Pottorf has diagonal raised portions between diamond shaped indentations. The patent to Tash shows the textured band to be formed of square indentations between raised portions, however such is considered to be a mere reversal of parts to form the textured surface with a crossed pattern of grooves and have the indented portions become raised portions as such is merely a reversal of parts, and it would have been obvious to modify the shape of such to be formed of diagonal crossed grooves as suggested by Pottorf as such is a known manner to dispose surface features on an inflatable plug to control surface friction, and to form such surface features as grooves between raised portions as such is merely a reversal of parts of the

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structure in Tash, where such modifications would allow for easier insertion and better grabbing of the pipe upon inflation.

Conclusion

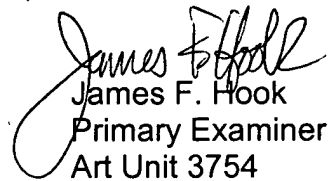
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Gray, Christensen, Condon, Tash (603), Vanderlans, and Kish disclosing state of the art inflatable plugs and end structures for connections of end caps or connectors to bodies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (703) 308-2913 until November 23, 2004 at which point it will change to (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
Art Unit 3754

JFH